

**REMARKS**

This is in response to the fifth Office Action, dated May 28, 2003, where the Examiner has rejected claims 1 and 4-53. By the present amendment, applicants have amended claims 20, 31 and 42. After the present amendment, claims 1 and 4-53 are pending in the present application. Reconsideration and allowance of pending claims 1 and 4-53 in view of the following remarks are respectfully requested.

**A. Rejection of Claims 1 and 4-53 under 35 U.S.C. § 102(b)**

The Examiner has rejected claims 1 and 4-53 under 35 U.S.C. § 102(b), as being anticipated by Kedar et al. (USPN 4,750,171) (hereinafter "Kedar"). Applicants respectfully but strongly disagree with the Examiner's rejection.

In rejecting claims 1 and 4, the Examiner states:

Kedar discloses a peripheral bus is a conventional 64 timeslot system and each timeslot on the bus forms a logical timeslot. Each channel may be used for data or voice (column 6, lines 10-26). The bus also transmits data control channel information on the D channel to provide command information within the entire system (column 6, lines 10-26. These transmissions are made through a modem (column 6, lines 27-34.)

Applicants respectfully submit that, in claim 1, applicants do not claim a timeslot system or a data switching system, but as the preamble of claim 1 reads, applicants claim: "A modem comprising at least one physical channel for transmitting data from a source to a receiver, said physical channel having a first logical channel and a second logical channel ...."

Applicants respectfully submit that the key in the Examiner's statement above is in the last sentence where the Examiner states: "These transmissions are made through a modem." In other words, as explained below, Kedar merely describes using modem pool 25 for the purpose of connection to remote hosts that may be connected to the system of Kedar by way of modem

pool 25 which are connected to the system via conventional public switched data networks. See col. 4, lines 47-50.)

As described in Kedar, modem pool 25 is connected to the system to allow for high speed digital data transmission between the various endpoints connected to the peripheral bus 16. (Col. 6, lines 26-34.) Therefore, modem pool 25 itself is not an endpoint within the system for the use of the data or command being transported by the peripheral bus 16, but modem pool 25 merely provides a conduit for data transmission between various endpoints connected to the peripheral bus 16.

FIG. 7 of Kedar clearly illustrates and its related description states that the modem modules utilized by system 56 of Kedar are conventional modems using UARTs and standard RS232C interface for communication with system 56. See col. 17, line 51 - col. 18, line 37.

The modem pool 25 may also serve as a local access endpoint through which a terminal or host may be connected directly to the system, through a standard RS232C interface. (Col. 17, lines 53-56.)

Inside each modem module there are universal asynchronous receive and transmit chips (UART) 182 which are used to convert the signal sent along the network interface communication bus 196 to an asynchronous signal which is then fed to a conventional modem 186. Each modem module may contain multiple UARTs which are fed data from the network interface communication bus 196 under control of direct memory access controller 184. (Col. 18, lines 6-15.)

It should also be noted that communication bus 196 is not in direct communication with TDM bus 116. As shown in FIG. 7, peripheral bus control 150 is connected to TDM bus 16 (PBUS) and communication bus 196 is controlled by the network interface microprocessor 176, where the network interface microprocessor 176 removes the information from the dual port RAM 164 and forwards the data along the network interface communication bus 196 in whatever

format or protocol (level 3) necessary for the appropriate type of endpoint involved. See col. 18, lines 1-6. Accordingly, as stated above, modem modules of Kedar are described as merely transporting data (information or command) between the system and the endpoint. There is no indication, whatsoever, in Kedar that modem modules are controlled by the command information on the TDM bus 16 or that modem modules receive information from the communication bus 196 on logical channels. As stated in Kedar, the UARTs 182 are used as the modem modules interface with the communication bus 196. Therefore, Kedar fails to show a modem “comprising at least one physical channel for transmitting data from a source to a receiver, said physical channel having a first logical channel and a second logical channel: and that “said first logical channel is configured to transmit only command information from the source to the modem for controlling the modem”.

Accordingly, claim 1 and its dependent claims 16-19 should be allowed.

Turning to claim 4, claim 4 recites “a communication method for use by a modem”. With respect to rejection of claim 4, Kedar fails to show, for example, that modem module of Kedar is “receiving data information via a first logical channel”, “receiving command information via a second logical channel”, and “executing said command information”. As explained above, Kedar merely teaches a conventional TDM bus 16, which is not used as a modem interface, but modem module of Kedar is a conventional modem using a conventional UART and RS232C interface. There is no disclosure, teaching or suggestion that modem modules of Kedar receive data and commands on logical channels or modem modules of Kedar execute command information transported by the TDM bus 16. As stated above, modem

modules of Kedar are merely conduits for transporting data provided by the communication bus 196 via the UARTs 182 to various endpoints.

Accordingly, claim 4 and its dependent claims 5-15 should be allowed.

With respect to claim 20, as noted above, modem modules of Kedar are in communication with the communication bus 196, which is not described to be a TDM bus and does not include logical channels, but in fact communicates with modem modules via the UARTs 182. In contrast, modem device of claim 20 communicates with a host interface via “a physical channel interface, said physical channel including a logical command channel and a logical data channel; wherein said controller provides said command information to said physical channel interface via said logical command channel and provides said data information to said physical channel interface via said logical data channel, and wherein said command information includes a command type defining said logical command channel, and said data information includes a data type defining said logical data channel.” There is no disclosure, teaching or suggestion in Kedar, whatsoever, that modem modules of Kedar communicate with the communication bus 196 in such manner.

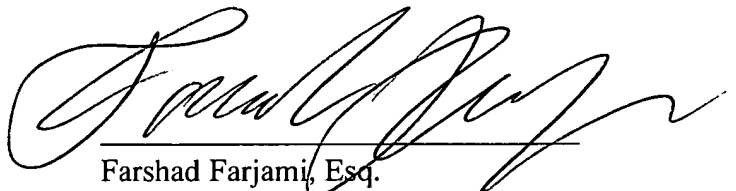
Accordingly, claim 20 and its dependent claims 21-30 and 53 should be allowed.

Independent claims 31 and 42, and their respective dependent claims 32-41 and 43-52, should also be allowed at least for one or more reasons stated above in conjunction with patentability of claims 1, 4 and 20.

**B. Conclusion**

For all the foregoing reasons, an early allowance of claims 1 and 4-53 pending in the present application is respectfully requested. The Examiner is invited to contact the undersigned for any questions.

Respectfully Submitted;  
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